UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,387	12/05/2003	Robert Depta	P2001,0378	9241

24131 7590 06/12/2007
LERNER GREENBERG STEMER LLP
P O BOX 2480
HOLLYWOOD, FL 33022-2480

EXAMINER	
CEHIC, KENAN	
ART UNIT	PAPER NUMBER
2609	
MAIL DATE	DELIVERY MODE
06/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/728,387	DEPTA ET AL.	
	Examiner	Art Unit	
	Kenan Cehic	2609	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

DANG T. TON
SUPERVISORY PATENT EXAMINER

1)☒ Responsive to communication(s) filed on *05 December 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7 and 9* is/are rejected.

7)☒ Claim(s) *8* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *05 December 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *12/05/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it consists of two paragraphs.

Correction is required. See MPEP § 608.01(b).

Claim Objections

2. Claim 6 and 9 are objected to because of the following informalities:

For claim 6, the terms " said nodes" recited in line 1. This seems to refer back to "said disconnectable nodes" in claim 5, line 4. If this is true, it is suggested to applicant to change "said nodes" to – said disconnectable nodes --.

For claim 9, the terms "monitoring apparatus" recited in line 10. This seems to refer back to "monitoring device" in claim 9, line 7. If this is true, it is suggested to applicant to change "monitoring apparatus" to –monitoring device--.

For claim 9, the terms " a fault state" recited in line 13. This seems to refer back to "a fault state" in claim 9, line 8. If this is true, it is suggested to applicant to change "a fault state" to – said fault state --.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 7 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 7 recites the limitation "said nodes" in line 1. There is insufficient antecedent basis for this limitation in the claim. It is not clear to which nodes the applicant is referring. Similar problems exist in claim 9, line 11.

The terms "nodes has been one of disconnected and connected " in claim 9 line 11-12, are vague and indefinite. It is not clear which nodes the applicant is referring to and if they have been connected or disconnected or both, and in what order.

Furthermore, Claim 9 recites the limitation " the originally faulty node " in claim 9 in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 1-3,5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sha et al (5,508,998) in view of Nakayashiki et al. (4,887,256) and background of Sha et al (5,508,998).

Note: In claim 1, the claim limitation contained in lines 2-4 is not a positively recited claim limitation (see "adapted to" in line 2), as it does not limit the claim to a particular structure. However, the references do teach those intended limitations.

For claims 1-3,5-7, Sha et al discloses at least two disconnectable nodes (see column 2 lines 8-11) adapted to connect to appliances (see Figure 2 and column 7 lines 13-17) and communicate with one another (column 7 lines 13-17) , and having a device for fault handling (see column 6 lines 52-54) ; a monitoring apparatus for monitoring and driving said nodes (see column 7 lines 1-19) ; and an additional node connected to said monitoring apparatus (see Figure 2 and column 6 line 65 to column 7 line 3). Sha et al does not disclose: allowing a fault state to be produced deliberately in said disconnectable nodes, as recited in claim 1; using serial data traffic, protocol and synchronization signals, as recited in claim 2; a circuit configuration not complying with the protocol, as recited in claim 3; a fiber channel data ring as recited in claim 4; interference causing synchronization fault as recited in claim 5; re-initialization as recited in claim 6; re-initialization as recited in claim 7. Nakayashiki et al., from the same or similar field of endeavor does teach the above listed claim limitations.

For claim 1,Nakayashiki et al., from the same of similar field of endeavor, discloses allowing a fault state to be produced deliberately (column 11 lines 3-12, lines 49-52) in said disconnectable nodes (see column 6 line 68 through column 7 line 4).

For claim 2, Nakayashiki et al. discloses serial data traffic is carried (see column 7 lines 17-20 and column 9 lines 5-13) using a protocol (see column 4 lines 3-5 and column 6 lines 51-55) including synchronization signals (see column 2 lines 65-68).

For claim 3, Sha et al, Nakayashiki et al. teaches a configuration of said additional node corresponds to a configuration of said disconnectable nodes (see Sha et al column 6 19-23); and a circuit configuration (see of Nakayashiki et al. column 6 lines 61-63 and Figure 2) producing a signal not complying with said protocol (see Nakayashiki et al. column 11 lines 49-52) and connected as said appliance (Nakayashiki et al Figure 2 and column 61-63).

For claim 5, Nakayashiki et al. teaches an additional node interferes with transmission of the synchronization signals to initiate a synchronization fault in said disconnectable nodes (see column 2 line 65 through column 3 line 15).

For claim 6, Nakayashiki et al teaches wherein the nodes reinitialize (see column 6 lines 61-63) upon a data ring fault (see column 2 line 65 through column 3 line 15).

For claim 7, Nakayashiki et al teaches that the nodes reinitialize (see column 5 lines 51-55 with column 6 lines 61-63) upon the synchronization fault (see column 2 line 65 through column 3 line 15).

Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to combine the ring features as taught by Nakayashiki et al. into the token ring as taught by Sha et al. Both architectures employ the data ring structure thus it would be possible to combine the features such as a connecting a peripheral to ring nodes. For claims 1,2,5-7, the features can be implemented via software. For claim 3, the additional circuit configuration could have been easily included into the data ring that Sha et al. teaches.

For claim 1, the motivation to combine is to reconfigure and quickly restore communication in a communication network after a failure or abnormality has occurred. For claim 2, the motivation for combining the serial data traffic is so that one can only use one physical medium for data transmission; the protocol is in order to provide the a common set of rules so that devices are able to understand each other; the synchronization is so that the data received in neither lost nor jumbled.
For claim 3, the motivation to combine to have all the ring nodes equally configured, is so that we do not require a special node or agent to perform fault detection and isolation, but that a regular node in the ring can accomplish the task. The motivation for having a circuit that produces a signal not complying with the protocol is to reconfigure and

quickly restore communication in a communication network after a failure or abnormality has occurred.

For claim 5, the motivation to cause a fault, using a different timing generation mechanism, in a ring node is to avoid causing a fault in a different node downstream in the node network.

For claim 6, the motivation is to bring the node into such a state so that communication in the ring network continues interrupted, when a fault occurs.

For claim 7, the motivation is to bring the node into such a state so that communication in the ring network continues interrupted, when timing related fault occurs.

8. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sha et al (5,508,998) and Nakayashiki et al. (4,887,256), in view of Egnell (US 6,574,192 B1).

For claim 4, Sha et al and Nakayashiki et al discloses all the claimed invention as described in paragraph 4. Sha et al and Nakayashiki et do not disclose that the data ring is a fiber channel data ring. Egnell from the same or similar field of endeavor, discloses a data ring is a fiber channel data ring (see column 3 lines 25-28). Thus it would have been obvious to one of ordinary skill in the art at the time of invention was made to implement the data ring as taught by Sha et al and Nakayashiki et al via a fiber channel. The data ring architecture is extremely flexible and can be realized via fiber optics. The motivation is to provide higher transfer speed and better signal reliability.

Allowable Subject Matter

9. Claim 8 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. Claim 9 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US-4,498,082 A	Aldridge et al.
US-4,633,468 A	Skatrud et al.
US-4,710,915 A	Kitahara, Takeshi
US-5,301,185 A	Cherry, Michael F.
US-5,355,362 A	Gorshe et al.
US-5,363,366 A	Wisdom et al.
US-5,425,017 A	Copley et al.
US-5,461,628 A	Nakamura, Shinya
US-5,491,696 A	Nishimura, Koichi
US-6,088,141 A	Merli et al.
US-6,175,553 B1	Luk et al.
US-2002/0009058 A1	Kelly et al.
US-6,426,962 B1	Cabezas et al.
US-2003/0031126 A1	Mayweather et al.
US-6,731,597 B1	Batchellor et al.
US-2004/0264365 A1	Johnson et al.
US-7,003,705 B1	Yip et al.
US-7,016,430 B1	Grivna et al.
US-7,167,444 B1	Afferton, Thomas S
US-7,171,224 B2	Sarkkinen et al.
US-7,184,663 B2	Kinoshita et al.

The above references are recited to show data rings and associated methods.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenan Cehic whose telephone number is (571) 270-3120. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on (571) 272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KC

DANG T. TON
SUPERVISORY PATENT EXAMINER